

REPORT ON A COLLECTION OF JAPANESE CRANE-FLIES (*TIPULIDÆ*, *DIPTERA*).

(Continued from Vol. XLV., p. 322).

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Subfamily: *TIPULINÆ*.Tribe: *DOLICHOPEZINI*.Genus: *Nesopeza*, gen. n.

Antennæ 13-segmented, segment 1 cylindrical with a few long hairs; segment 2 oval-cylindrical; segment 3 very long, cylindrical; the succeeding segments gradually shorter, the last very slender. Palpi with the apical segment slender, as long as all of the preceding segments combined. Legs excessively long and slender. Wing-venation as in *Dolichozeza* Curtis (lack of cell 1st M<sub>2</sub>, basal deflection of Cu<sub>1</sub> far before the fork of M, etc.), but the radial sector is very elongate, angulated at origin, almost as long as R<sub>3</sub> beyond the fork, Rs not short and simulating a cross-vein.

Type of the genus: *Dolichozeza gracilis*, de Meij.***Nesopeza gracilis*** de Meijere.1911.—*Dolichozeza gracilis* de Meijere; Tijds. voor Ent., vol. 54, p. 60, 61; pl. 4, fig. 46.

One ♀ from Tokyo, Japan; August, 1912. (Vial D.)

This new genus represents one extreme of the *Dolichozeza* group and *Scamboneura* Osten Sacken, the other. In this genus the radial sector is extremely elongated, in *Dolichozeza* Curtis almost transverse and simulating a cross-vein, while in *Scamboneura* the origin of the sector is farther distad than the tip. See my key to the Dolichopezini, Psyche, vol. 19, p. 64. (April, 1912.)

Genus: ***Dictenidia*** Brullé.Tribe: *CTENOPHORINI*.*Dictenidia fasciata* Coquillett.1898.—*Dictenidia fasciata* Coquillett; Proc. U. S. Nat. Mus., vol. 21, p. 304, 305.1902.—*Dictenidia fasciata* Kertész; Cat. Dipt., vol. 2, p. 266.

One ♂ from Tokyo, Japan, Aug. 1912 (Vial 39). It agrees very closely with Coquillett's description. The specimen offers the following measurements:

May, 1914 ♂

Length 12 mm.; wing 10.2 mm.; antennæ 5 mm.

Fore leg femur 6.7 mm.; tibia 7.4 mm.

Middle leg femur 7 mm.; tibia 6.4 mm.; tarsus 6.9 mm.

Hind leg femur 8.8 mm.; tibia 10.4 mm.; tarsus 6 mm.

I supply a figure of the wing of this beautiful crane-fly, it never having been figured. (See Plate XII, fig. 8).\*

Tribe: TIPULINI.

Genus: **Pachyrhina** Macquart.

*Key to the Japanese Pachyrhinæ.*

1. Thoracic markings brown or black, distinct.....2.  
Thoracic markings very pale, ill-defined.....*flavonota*, sp. n.
2. Mesonotal stripes pale brown; tip of wing narrowly and regularly bordered with dark brown; [scutellum and postnotum mostly yellowish; abdominal tergites trivittate].....*palloris* Coq.  
Mesonotal stripes black; tip of wing hyaline or irregularly suffused with darker.....3.
3. Mesonotal stripes very broad, almost concealing the pale ground colour; tip of the wing clouded with darker.....*pullata*, sp. n.  
Mesonotal stripes narrower, so that the yellow ground colour is well defined; tip of the wing clear.....4.
4. Scutellum and postnotum unmarked with darker.....*repanda*, sp. n.  
Scutellum black; postnotum with a dark median vitta.....*virgata* Coq.

**Pachyrhina flavonota**, sp. n.

Head yellow, shining, without a distinct darker spot; mesonotum orange-yellow with well defined darker stripes.

Male.—Length 12 mm.; wing 10.6 mm.; antennæ 3.8 mm.

Female.—Length 14.6 mm.; wing 14 mm.

Male.—Palpi light brown; frontal prolongation of the head yellow, nasus brown, with a tuft of brown hairs; antennæ, scapal segments yellow, first flagellar segment yellow, on its inner face at three-fourths its length with a wart-like knob, remaining flagellar segments brown, the enlarged bases darker brown, inner face of the

\*Plate XII will appear in the next issue.

intermediate flagellar segments not very deeply incised; front, vertex and occiput shining yellow, no distinct mark on the vertex.

Pronotum yellowish; mesonotal præscutum orange-yellow with faint indications of darker stripes; a small brown mark in the notch of the transverse suture; scutum, scutellum and postnotum without distinct marks. Pleura light yellow. Halteres brownish yellow, the knobs yellow. Legs, coxæ and trochanters yellow, femora and tibiæ dull yellow, the tips darker, tarsi brown. Wings subhyaline, the tip broadly but indistinctly suffused with darker; stigma oval, brown; cells C and Sc. a little yellowish. Venation, see pl. XI. fig. 5.

Abdomen with the tergites yellowish, slightly darker medially and laterally; segments 8 and 9 brown; sternites yellowish. The male hypopygium with the 9th tergite from above (plate XI, fig. 6) with the caudal margin four-lobed, the central lobes on either side of the shallow median notch, these lobes provided with numerous black denticulæ; the 9th sternite from below with a broad and deep V-shaped median notch. Outer apical appendages narrow, tapering to a very long point; inner appendage with the usual cephalad prolongation, beneath which is a small, chitinized tooth. (See plate XI, fig. 15.)

Female.—Larger, the abdominal tergites with distinct brown blotches on each segment, these broadest behind, narrowed to a point in the front.

Holotype, ♂, Tokyo, Japan, August, 1912 (Vial K).

Allotype, ♀, Tokyo, Japan, August, 1912 (Vial 42).

### ***Pachyrhina palloris* Coquillett.**

1898.—*Pachyrhina palloris* Coquillett, Proc. U. S. Nat. Mus., vol. 21, p. 306.

1902.—*P. palloris* Kertész, Cat. Dipt., vol. 2, p. 321.

1910.—*P. palloris* Riedel, Deutsch. Ent. Zeitschr., p. 436.

Two females agreeing rather well with Coquillett's description, but showing the following differences: The median thoracic vitta is bisected from the front by a pale line, making this stripe double; sides of the scutellum brown; the antennæ, broken in the type, may be thus described: four basal segments yellow, remaining

segments with the enlarged basal third dark brownish black, the remainder of each segment dull yellow. The venation is shown in plate XI, figure 2. Vial K. Tokyo, Japan; August, 1912; 2 ♀.

***Pachyrhina pullata*, sp. n.**

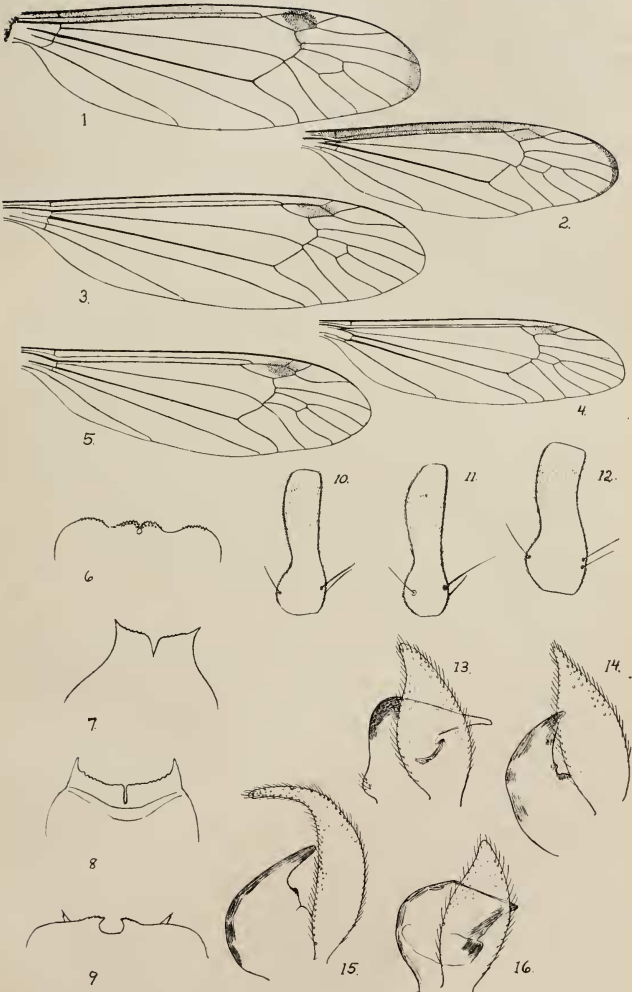
Thoracic dorsum mostly black; wings with the apex brownish.

Male.—Length 17.4 mm.; wing 12.9 mm.; antennæ 4.6 mm.‡

Male.—Palpi brown, the third segment yellow; frontal prolongation of the head shiny black; antennæ with the first segment brown, paler apically, second segment yellow, third segment pale brown at the base, dark brown at tip, remaining segments dark brownish black. (See plate XI, fig. 12, for outline of the sixth antennal segment); vertex brownish yellow, darkening to the brown on the occiput and genæ.

Pronotum light yellow above; mesonotum dull yellow with three jet black stripes, the median stripe very broad and narrowed behind, the lateral stripes short, broad, straight, the space between these three stripes very narrow and greatly reduced; scutum with the median depression pale in front; behind and on the lobes black; scutellum and postnotum broadly black medially, paler on the lateral margin of the sclerites. Pleura yellow, with dark brownish black blotches as follows: An elongate, vertical mark on the propleura; mesopleura with a large blotch on the ventral portions of the episternum and the sternum; caudal edge of these two sclerites with an elongate vertical blotch extending from the wing-root to mesocoxa, the portion of the postnotum between the base of the wings and the halteres brown; metepimeron brown. Halteres pale, knobs whitish at the tips. Legs, fore coxæ brown, trochanter light yellow, femora yellow basally, browner at tip; other coxæ more yellowish, femora darkening to brown at tip, tibiæ brown, lighter basally; tarsi dark brownish-black. Wings hyaline or nearly so, cells C and Sc. yellowish; stigma brown, distinct; cord margined with brown; apex of wing brownish. Venation as in plate XI, fig. 1.

Abdomen with the first tergite brown, except on the side in front; segments 2 to 5 brown on the caudal half; segment 6 with the caudal half dark brown; segments 7 to 9 dark brown; sternites yellow; caudal half of the 7th to 9th segments dark brown.



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Male.—Hypopygium n, with the 9th tergite (pl. XI, fig. 7) from above, narrow with deep median notch on the caudal margin, and with the outer angles of the lobes produced into sharp points, which are directed caudad and laterad, the caudal margin of these lobes with fine denticulæ, 9th sternite from beneath with the caudal margin gently concave, pleural suture very strongly arcuated; apical appendages, outer one rather broad and pointed, inner appendage with a long curved point below which are three chitinized teeth. (See plate XI, fig. 14).

Holotype, ♂. Tokyo, Japan; May 7, 1912. (Vial 30.)

***Pachyrhina repanda*, sp. n.**

Head yellow, with a small rounded brown spot on vertex; mesothorax with black stripes, scutellum and postnotum unmarked.

Male.—Length 12.9 mm.; wing 13.4 mm.; antennæ 5.2 mm.

Male.—Palpi yellow; frontal prolongation of the head yellow except the nasus, which is brownish and provided with a tuft of long brown hairs; antennæ with segments 1 to 3 yellowish, the third a little brown on the lower surface; remainder of antennæ dark brownish black; the intermediate flagellar segments rather deeply incised on the lower face at the basal third (see plate XI, figure 11, showing the outline of the sixth antennal segment); front, vertex and occiput yellow, the vertex with a small rounded dark brown median spot behind.

Pronotum light yellow; mesonotal præscutum light yellow, with dark brownish black stripes as follows: A broad median stripe which is widest in front, slightly narrowed behind and running the length of the sclerite; a shorter lateral stripe on either side, this stripe curved laterad before the pseudosuture; scutum, lobes with a prominent oblique stripe running across them; a small triangular median blotch on the anterior half of the sclerite; scutellum and postnotum light yellow, unmarked. Pleura pale yellowish white. Halteres light coloured, the knob a little suffused with brown. Legs, coxæ and trochanters light yellow, femora and tibiæ yellowish brown, passing into brown at the tip of the latter; tarsi brown. Wings subhyaline, cells C and Sc. a little brighter, yellowish; stigma small, brown, tip of the wing a little suffused with darker; veins brown, vein Sc. yellow. Venation as in plate XI, figure 3.

Abdomen, tergites yellow with an indistinct light brown blotch in the middle of each sclerite; lateral sutures darker; sternites yellow; segments 7 to 9 dark brown. Male hypopygium with the 9th tergite (see plate XI, fig. 8) from above with the caudal margin concave, with a deep, parallel-sided, median notch, the lateral angles produced into points which are directed caudad the caudal margin with small, black denticulæ and points; 9th sternite from below with the caudal margin about straight with a rounded median protuberance. Apical appendages, the outer fleshy lobe rather broad, the point moderately long and rather obtuse; the inner appendage is strongly chitinized, rounded-oval, on the cephalic face produced into a long point which is directed forward; below this point, very strongly chitinized and deeply incised. (See plate XI, fig. 16.)

Holotype, ♂, Tokyo, Japan; August, 1912. (Vial 43.)

***Pachyrhina virgata* Coquillett.**

1898.—*Pachyrhina virgata* Coquillett, Proc. U. S. Nat. Mus., vol. 21, p. 306.

1902.—*P. virgata* Kertész, Cat. Dipt., vol. 2, p. 325.

1910.—*P. virgata* Riedel, Deutsch. Ent. Zeitschr., p. 436.

Several specimens of this interesting species were included in the collection.

Male.—Length 10.8—11.8 mm.; wing 10.2—12.4 mm.; antennæ 4.6—4.9 mm.

Female.—Length 14.4 mm.; wing 13 mm.

I give a figure of the sixth antennal segment in plate XI, figure 10, and of the wing-venation in plate XI, figure 4. The male hypopygium may be described as follows: The 9th tergite from above (plate XI, figure 9) with the caudal margin having a broad rounded median notch into which the tips of the apical pleural appendages fit, the inner edge of the adjacent lobe produced into chitinized lobules which are provided with denticulæ; each lobule with a sharp chitinized point on its caudal margin, these points directed caudad. In a small ♂ (Vial 46) the median notch is not so rounded, more oval, the sharp caudal points are longer. Apical appendages, the outer fleshy lobe rather broad and pointed, inner lobe with a

long, cephalad-directed point which is provided with a few hairs on its lower face, with a deep notch beneath its base and a strongly chitinized protuberance. (See plate XI, fig. 13).

Vial 22; Tokyo, Japan; April 26, 1912; 1 ♂, 1 ♀.

Vial 35; Tokyo, Japan; May 7, 1912; 1 ♀.

Vial 43; Tokyo, Japan; Aug. 1912; 2 ♂.

Vial 44; Tokyo, Japan; Aug. 1912; 1 ♀.

Vial 46; Tokyo, Japan; Aug. 1912; 2 ♂.

Vial K; Tokyo, Japan; Aug. 1912; 1 ♀.

(To be continued.)

## THE PRESENCE OF RING-JOINTS IN AUSTRALIAN *SCELIONIDÆ*.

BY ALAN P. DODD, NELSON, N. Q., AUSTRALIA.

Quite recently while examining the antennæ of a Scelionid, *Gryonella reticulata* Dodd, I was somewhat surprised to find that two small ring-joints were present. As ring-joints have not been recorded in this family, I had never searched for them, and it was only accidentally that their presence in this species was noticed. This discovery caused me to examine the antennæ of numerous Scelionids in my collection. I found that in some cases there were obviously no ring-joints present; in others there appeared to be minute ring-joints, but I could not make sure of the fact, while in a few cases the ring-joints were distinct, though small. The following species possessed obvious ring-joints: Subfamily *Teleasinæ*, *Gryonella reticulata* Dodd; Subfamily *Balinæ*, *Acolomorpha minuta* Dodd; Subfamily *Scelioninæ*, *Hadronotus nigriceps* Dodd, *Opisthacantha giraulti* Dodd, *Sceliacanthella parvipennis* Dodd, *Leptoteleia aurea* Dodd, *Baryconus exsertus* Dodd, *B. longipennis* Dodd, and *B. trispinosus* Dodd.

The species, *Opisthacantha giraulti*, possessed apparently one ring-joint, but under high-power magnification there appeared to be three excessively thin ring-joints. *Gryonella reticulata* had two ring-joints, while the other species mentioned possessed but one each. This discovery is of considerable interest.